



Network Camera Installation Guide

Mainline 2 MP PTZ Dome

Model CV-M2PT10-OD



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Manufacturer

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Description

The ClareVision Mainline 2MP PTZ Dome camera (CV-M2PT10-OD) is integrated with a built-in pan/tilt unit and a digital image receiver. The camera features highly sensitive response and reliable performance, and it also ensures the image clarity and stability.

Package contents

1X 24 V AC Adapter

2X star wrench

Safety instruction

Follow these instructions to ensure that the product is used correctly and to avoid danger or property loss. Serious injury or death may occur if any of the warnings are ignored. Injury or equipment damage may occur if any of the cautions are neglected.

WARNINGS

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 24 VAC or 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.
- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket.
- When the product is mounted on wall or ceiling, the device should be firmly fixed.
- If smoke, odor, or noise rise from the device, turn off the power at once and unplug the power cable. Contact the service center.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

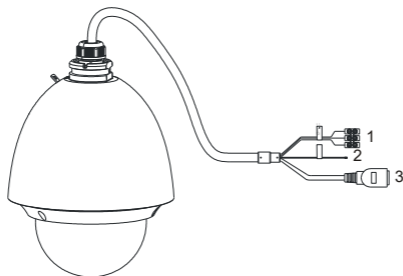
CAUTIONS

- Make sure the power supply voltage is correct before using the camera.
- Do not drop the camera or subject it to physical shock.
- Do not touch CMOS modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period, replace the lens cap to protect the CMOS from dirt.
- Do not aim the camera at the sun or extra bright places. Blooming or smearing may occur (which is not a malfunction), and affect the endurance of CMOS at the same time.
- The CMOS may be burned out by a laser beam, so when any laser equipment is in use, make sure that the surface of CMOS will not be exposed to the laser beam.
- Do not place the camera in extremely hot or cold environments (the operating temperature should be -30°C to $+60^{\circ}\text{C}$), dusty or damp locations, and do not expose it to high electromagnetic radiation.
- To avoid heat accumulation, good ventilation is required for the operating environment.
- Keep the camera away from liquid while in use.
- When returning a camera, pack it in its original packing, or similar packing materials.
- Regular part replacement: a few parts of the equipment should be replaced regularly according to their average enduring time. The average time varies because of differences between operating environment and use history, so regular checking is recommended for all users. Contact your dealer for more details.

- Improper use or replacement of the battery may result in hazard of explosion. Replace it with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. We do not assume any responsibility for problems caused by unauthorized repair or maintenance.

Overview

Figure 1: Mainline 2 MP PTZ Dome camera

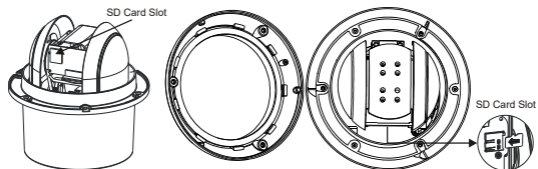


- (1) Power cables
- (2) Audio cables
- (3) Network cable

Micro SD card instructions

There are two kinds of SD card slot positions because of different dome models. Refer to the following reference-only figures.

Figure 2: Install the SD card



Installation

Before you start, check the package contents and make sure that the device in the package is in good condition and that all the assembly parts are included.

Notes

- Do not remove the protective film from the lower dome until after the installation is complete.
- Do not touch the bubble of the lower dome directly by hand. The image blurs otherwise.
- Do not carry the camera by its waterproof cables (see Figure 3), as this may affect its waterproof performance.

Figure 3: Do not carry the dome by its cables

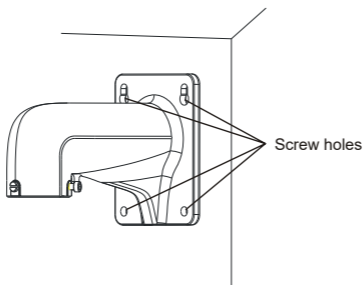


Wall mounting

When mounting the dome to a wall, be sure that the wall is thick enough to mount the expansion screws. The wall must be strong enough to withstand more than four times the weight of the dome and its accessories.

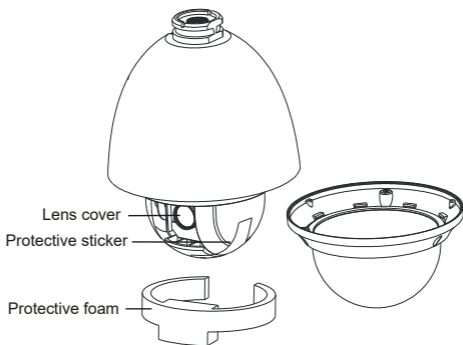
To mount the dome to a wall:

1. Drill screw holes as shown below.
 - a. Attach the wall mount to the wall where you need to install the dome.
 - b. Drill four screw holes according to the screw holes on the wall mount.
 - c. Hammer four M8 expansion pipes (not supplied) into the screw holes.

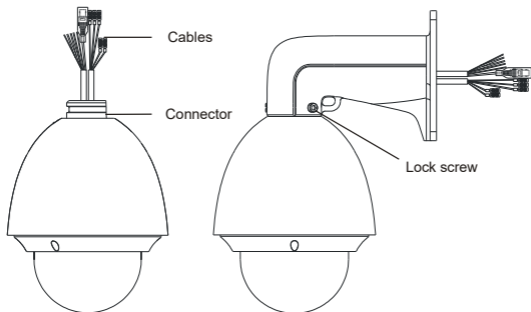


2. Loosen the screws and remove the lower dome from the back box.
3. Remove the protective lens cover, foam, and sticker from the dome drive. See the following figure.

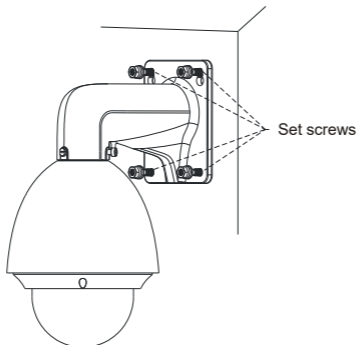
4. Attach the lower dome to the back box, and then secure it with screws.



5. Secure the dome to the wall mount.
 - a. Feed the dome cables through the wall mount.
 - b. Rotate the connector of dome to the wall mount.
 - c. Tighten the lock screw with the hex key (supplied) to secure the two units.



6. Route the cables and secure the wall mount.
 - a. Route the cables for the dome. Refer to “Overview” for connecting the cables.
 - b. Tighten the set screws to secure the wall mount to the wall with the dome.



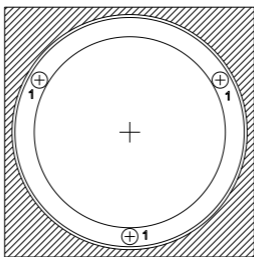
In-ceiling mounting

When mounting the dome in the ceiling, be sure that the height of the space above the ceiling is more than 25 cm. The ceiling must be with the thickness between .5 and 4.0 cm. The ceiling must be strong enough to withstand more than four times the weight of the dome and its accessories.

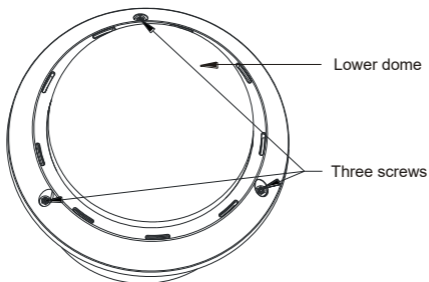
To mount the dome to a ceiling:

1. Drill holes in the ceiling.
 - a. Attach the drill template to the ceiling where you need to install the dome.
 - b. Cut a hole and drill screw holes according to the drill template.

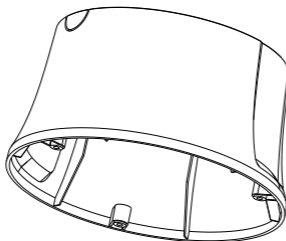
Note: ± 2 mm of the diameter of the circle is tolerable.



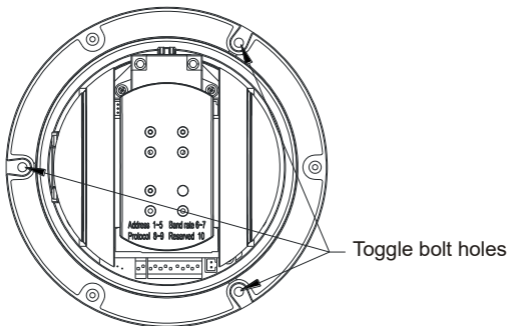
2. Disassemble the dome.
 - a. Loosen three screws as shown in the following figure.
 - b. Remove the lower dome.



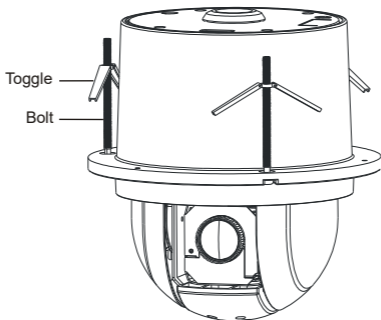
3. Loosen the three screws and remove the back box.
4. Remove the protective lens cover, foam, and sticker from the dome drive.



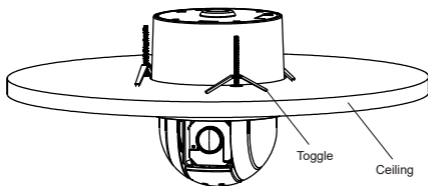
5. Install the toggle bolts.
 - a. Remove the toggle from the toggle bolt.
 - b. Insert the bolts into the screw holes on the dome.
 - c. Rotate the bolts through the screw holes.



6. Reinstall the toggles as shown below.

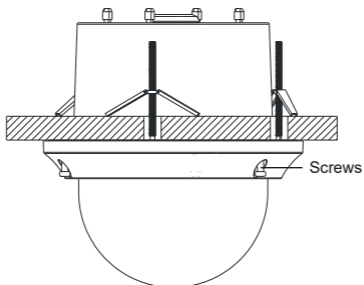


7. Align the toggle bolts with the screw holes on the ceiling.
8. Push the dome to the mounting hole on the ceiling.
9. Rotate the bolts again. The toggle will automatically rotate down to secure the dome to the ceiling.

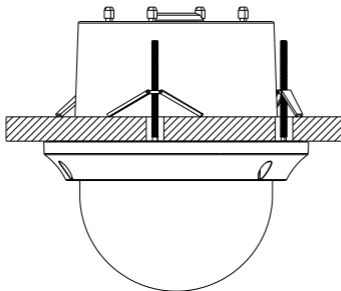


10. Attach the lower dome to the dome.

11. Secure the lower dome with three screws.



12. Route the cables through the ceiling for the dome. Refer to "Overview" for connecting the cables.

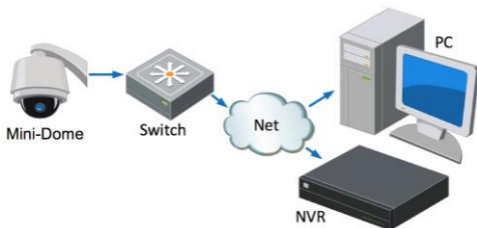


Setting the network camera over LAN

To view and configure the camera via a Local Area Network (LAN), you will need to connect the network camera in the same subnet as your PC. Next, install the SADP software to search and change the IP of network camera. You can download the SADP software tool from the Clare Controls website at www.clarecontrols.com.

The following figure shows the cable connection of network camera and PC.

Figure 4: Wiring over LAN



To set the camera's IP address for accessing via LAN:





1. To get the IP address, use the SADP software tool. The tool can automatically detect the network camera in the LAN and list the device information, such as IP address, subnet mask, port number, device serial number, device version, etc., shown in the following figure.



2. Change the IP address and subnet mask to the same subnet as of your PC.

After launching, the SADP software automatically searches the online devices every 15 seconds from the subnet where your computer is located. It displays the total number and information of the searched devices in the Online Devices interface. The interface displays the device type, IP address, port number, and gateway.

Notes

- The camera takes 15 seconds to show up online, and 45 seconds to show offline when it is removed.
- Click **Refresh Every 15s** to refresh the online device list manually.
- Click  or  on each column heading to change the order of the displayed information.
- Click  to show the device table and hide the network parameter panel, or click  to show the network parameter panel.

To modify device information:

1. Select the device to be modified from the device list.



The screenshot shows a web interface with a header bar containing 'Online Devices' and 'About' tabs. Below the header, there is a status bar indicating 'Total number of online devices: 1' and a 'Refresh' button. The main content is a table with the following data:

ID	Device Type	IPv4 Address	Port	Software Version	IPv4 Gateway	Serial No.
001	D5-XXXX-XX	192.0.0.64	8000	VX.X.XbuildXXXX	192.0.0.1	XX-XXXX-XXXXXXXXXX

2. The network parameters of the device display in the Modify Network Parameters panel, as shown below.



The screenshot shows a 'Modify Network Parameters' panel with the following fields and values:

IP Address:	192.168.1.250
Port:	8000
Subnet Mask:	255.255.255.0
IPv4 Gateway:	192.0.0.1
IPv6 Address:	
IPv6 Gateway:	
IPv6 Prefix Length:	
Serial No.:	XXXXXXXXXXXXXXXXXXXX
Password:	

At the bottom, there is a 'Save' button and a note: 'Note: Enter the admin password of the device before you save the network parameters.'

3. Edit the modifiable network parameters as necessary.
4. Enter the password of the admin account of the device in the Password field and click **Save** to save the changes.

5. Enter the IP address of network camera in the address field of the web browser to view the live video.

Notes

- The default user name is "clareadmin," and password is "secure7."
- When accessing the network camera from different subnets, set the gateway for the network camera after you log in.

Accessing via a web browser

System requirements

- Operating System: Microsoft Windows XP SP1 and above version / Vista / Win7 / Server 2003 / Server 2008 32bits
- CPU: Intel Pentium IV 3.0 GHz or higher
- RAM: 1G or higher
- Display: 1024 x 768 resolution or higher
- Web browser: Internet Explorer 7.0 and above, Apple Safari 5.02 and above, Mozilla Firefox 3.5 and above, and Google Chrome8 and above

To access via a web browser:

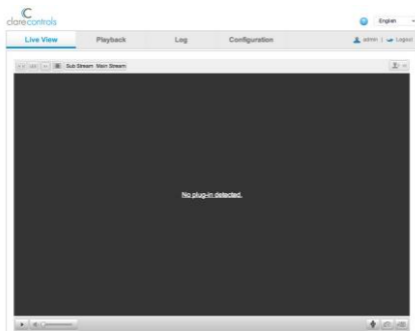
1. Open the web browser.
2. In the browser address bar, enter the IP address of the network camera – for example, 192.168.1.250, and then press **Enter** to display the login interface.
3. Enter the user name and password, and then click **Login**.



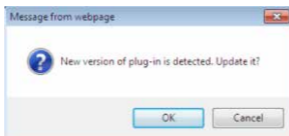
4. Install the plug-in as prompted to view the live video and manage the camera.

Notes

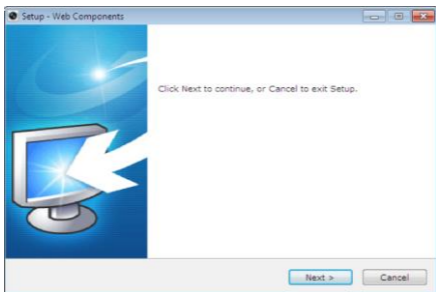
- You may need to close the web browser to finish the installation of the plug-in.
- Mac's require the plug-in to be downloaded manually. See the [Clare Controls ClareVision IP CCTV Dashboard](#) to download the plug-in.



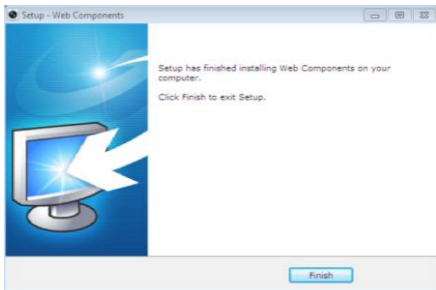
5. Click **OK**.



6. Click **Next**.



7. Click **Finish**.



8. Reopen the web browser after the installation of the plug-in and repeat steps 2 and 3 to login.

Note: For detailed instructions of further configuration, refer to the *Network Camera User Guide* (Doc ID 343).

Specifications

Camera	
Image sensor	1/2.8 in. Progressive Scan CMOS
Minimum illumination	0.05 lux at F1.6, AGC ON (color) 0.01 lux at F1.6, AGC ON (black and white)
White balance	Auto/Manual/ATW/Indoor/Outdoor/ Daylight lamp/Sodium lamp
Digital noise reduction	3D DNR
Wide dynamic range	Digital WDR
Shutter time	1/1 to 1/10,000s
Day and night	IR cut filter
Focus mode	Auto / Semiautomatic / Manual
Lens	
Focal length	2.8 to 12mm, 4x
Zoom speed	Approx.3s (optical wide-tele)
Angle of view	120° to 32° (wide-tele)
Working distance (min.)	10 to 1500 mm (wide-tele)
Aperture range	F1.6 - F3.5
Pan and tilt	
Pan range	360° endless
Pan speed	Pan manual speed: 0.1° to 120°/s, Pan preset speed: 150°/s
Tilt range	-2° to 90° (auto flip)
Tilt speed	Tilt manual speed: 0.1°-60°/s, Tilt preset speed: 90°/s
Patrol	8 patrols, up to 32 presets per patrol

Park action	Pattern / Pan scan / Tilt scan / Frame scan / Panorama scan / Random scan
Power-off memory	Supported
PTZ position display	On / Off
Preset freezing	Supported
Input / output	
Monitor output	1.0V[p-p] / 75Ω, PAL or NTSC composite, BNC
Audio input	1 audio input (line input), 2-2.4 V [p-p]; output impedance: 1 KΩ, ±10%
Audio output	1 output, line level, impedance: 600Ω
Network	
Ethernet	10Base-T / 100Base-TX, RJ45 connector
Image resolution (max.)	1920×1080
Frame rate	50Hz: 25 fps (1920×1080), 25 fps (1280×720) 60Hz: 30 fps (1920×1080), 30 fps (1280×720)
Image compression	H.264/ MJPEG
Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1X, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP,IGMP, ICMP, DHCP, PPPoE
Dual streams	Supported
Mini SD memory card	Built-in micro SD card slot, up to 32GB
User / host level	Up to 32 users, 3 levels: Administrator, Camera control, Live view only
Security measures	User authentication (ID and PW), host authentication (MAC address) IP address filtering

System integration	
Interface for application programming	Open-ended API, support Onvif, PSIA and CGI
Web browser	IE 7, IE 8, IE 9, Chrome 8 +, Firefox 3.5 +, Safari 5 +
Power	24 VAC /PoE + 802.3at 18 W max. (heater: 6W) (outdoor) 12 W max. (indoor)
Mounting	Various mounting modes optional
Temperature	-22°F to 149°F (-30°C to 65°C) (outdoor) 14°F to 122°F (-10°C to 50°C) (indoor)
Humidity	95% or less (non-condensing)
Dimensions (Ø × L)	7.06 × 9.43 in. (17.94 × 23.95 cm) (outdoor) 6.50 × 7.07 in. (16.50 × 17.95 cm) (indoor) 6.50 × 6.61 in. (16.50 × 16.8 cm) (in-ceiling)
Weight (approx.)	4.41 lbs. (2kg)

Regulatory information

DISCLAIMER

Underwriters Laboratories Inc. (UL) has not tested the performance or reliability of the security or signaling aspects of this product. UL has only tested for fire, shock or casualty hazards as outlined in UL's Standard(s) for Safety, UL60950-1. UL Certification does not cover the performance or reliability of the security or signaling aspects of this product. UL MAKES NO REPRESENTATIONS, WARRANTIES OR CERTIFICATIONS WHATSOEVER REGARDING THE PERFORMANCE OR RELIABILITY OF ANY SECURITY OR SIGNALING RELATED FUNCTIONS OF THIS PRODUCT.

FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see www.recyclethis.info.



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see www.recyclethis.info.

Warranty information

Clare Controls offers a three (3) year limited warranty on original Clare Controls components, from the date of shipment from Clare Controls. To view complete limited warranty details, including limitations and exclusions, www.clarecontrols.com/warranty.



Scan the code to
view product
warranty details.

Contact information

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www.clarecontrols.com

